



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

646.4002
Job Sheet 168844



Part No: 646.4002

Job Qty: 1 ea

Part Name: AS350 Wiper Deflector



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/23/17

Job Tracking No:

Due Date: 12/22/17

Created By: Mario Poulin

Type: SOLD

Description:

Customer: Airbus Cono Sur SA - EC Cono Sur (CEURO09)

Ruta 8 Brig. Gral. J.A. Lavalleja, Km 17500, Zonamerica Edificio 200 Local 208 Montevideo, , CP 91600
Uruguay ph:00. 589 2518 2566 fx:00. 598 2518 2565.

Note: DWG REV C1 IPP REV:A 12.12.23 NEW ISSUE DD VERF:JLM IPP REV:B 16.01.07 DWG REV:C DD
VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/22/17	0.00	0.00	Start Up Stores/Pkg-1		AT
110	Packaging	1 pcs		12/22/17	0.00	0.00	Packaging1-1		AT
120	QC	1 pcs		12/22/17	0.00	0.00	QC4		M.H.P.
125	DC	1 pcs		12/22/17	0.00	0.00	DC		T.C.
130	Packaging	1 pcs		12/22/17	0.00	0.00	Packaging3-1		M.H.P.
140	QC21-FG	1 Ea		12/22/17	0.00	0.00	QC21		DEC 13 2017

Part Op 125 - Photocopy bluefile & type labels per PPP 646.4002

Descriptions: 130 - Identify and pack for shipping as per PPP 646.4002 Location : FG102

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	600.1012 5021136	1 ✓	24	0	0
	646.3410 597822	1 ✓	15	0	0
	646.3411 5021133	1 ✓	13	0	0
	646.3814 5021131	2 ✓	14	0	0
	MS21042L3 5021113	6 ✓	966	0	0
	MS24694-S53 5021112	2 ✓	247	0	0
	MS27039-1-18 5021110	2 ✓	1,433	0	0
	MS27039-1-19 5021109	2 ✓	364	0	0
	NAS1149F0332P 5021108	16 ✓	2,485	0	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Quality ☐ Other ☐						
Date : _____	Step #: _____	Job No: 168844 Mtg Date: 12/13/17 Start up Operation 646.4002 AS350 Wiper Deflector S021153 DART AEROSPACE Change No: _____ Operation: _____ Revision: _____ PART NO: _____						
Description Work Order								
Root Cause <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border-right: 1px solid black;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="width:50%;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> </tr> </table>		Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	DART Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, ON K64 1K7 CANADA TEL: 1 613 632-5200 Email: sales@dartaero.com www.dartaerospace.com <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border-right: 1px solid black;"> P ☐ B ☐ C ☐ CI ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="width:50%;"> Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> </tr> </table>			P ☐ B ☐ C ☐ CI ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐
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Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____								

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NOTES:

1 AFTER INSTALLATION, APPLY F/N 54 A/R TO FILL GAPS AND FILLET EDGES.

2 INSTALL F/N 14 WITH F/N 52 & 53.

3 3M VHB ADHESIVE TAPE .025" THICK X .50" WIDE
VENDOR: MCMMASTER-CARR P/N 75935A651.

4 3M TAPE PRIMER 94, APPLY TO BOTH SURFACES A/R BEFORE TAPE.
VENDOR: R.S. HUGHES P/N 021200-24216.

5 REUSE FASTENERS FROM F/N 1.

6 USE WASHERS A/R AS SHIMS TO OBTAIN BEST FITMENT.

7 AT CUSTOMERS OPTION, INSTALL F/N 65 BY MATCH DRILLING ON TO F/N 1.

8 INSTALL SHIM IF OEM PROVISIONS ARE INSTALLED ON AIRCRAFT. REMOVE SHIM LAYERS TO ACHIEVE CORRECT SIZE. MATCH DRILL HOLES. USE F/N 78 SCREW IN PLACE OF F/N 17 SCREW.

9 NEWER INSTALLATIONS ON AIRCRAFT WITH UPDATED CANOPY MAY REQUIRE DIFFERENT LENGTH SCREWS. USE F/N 62 TO REPLACE F/N 44 & F/N 26 IN PLACE OF F/N 41 WHEN NECESSARY.

REFERENCE ONLY

UNINCORPORATED ECN(S)

05304

5	5	5	78	601.3875	SCREW	UNINCORPORATED			
1	1	1	77	646.9410	SHIM	UNINCORPORATED			
	4	4	76	601.2764	WASHER	NAS11499B32P			
	2	2	75	601.2973	LOCKNUT	MS27042-08			
	2	2	74	601.2988	SCREW	MS27039-0813			
	2	2	73	601.2943	LOCKNUT	MS21042-3			
	2	2	72	601.3128	NUT	AN316CAR			
	2	2	71	601.3209	LOCKNUT	MS27042L4			
	4	4	70	601.2636	WASHER	NAS11499B32P			
	2	2	69	601.2669	BOLT	ANAC7A			
	2	2	68	601.3119	CLEVIS	A746AS-34P			
	2	2	67	601.3121	EYE BOLT	A744A-SA			
	2	2	66	650.9201	EYE BRACKET ASSY				
REF	REF	REF	65	647.5701	GPS MOUNT KIT	UNINCORPORATED			
		2	64	601.3151	WASHER	NAS11499B32P			
			63	601.2911	SCREW	MS2468MS53			
	24	24	62	601.2637	SCREW	MS27039-1-16			
2	2	2	61	601.2763	BOLT	AN3-12A			
	1	1	60	646.3913	SHIM				
	4	4	59	646.3912	SHIM				
	1	1	58	646.3911	SHIM				
	4	4	57	646.3910	SHIM				
	5	5	56	600.1013	PRIMER				
	8 FT	8 FT	55	600.0129	VHB TAPE				
	1	1	54	600.1012	SEALANT	PP-MS CLASS B			
	1	1	53	600.0991	MAGNEBOND 6398 PART B	UNINCORPORATED			
	1	1	52	600.0990	MAGNEBOND 6398 PART A	UNINCORPORATED			
6	10	10	51	601.2826	BOLT	A743-11A			
		2	50	646.3814	WIPER BRACKET				
		2	49	601.2910	SCREW	MS27039-1-16			
	2	2	48	601.1365	SCREW	MS27039-1-10			
	2	2	47	646.3719	DOUBLER				
	2	2	46	646.3718	CUSTOM WASHER				
	1	1	45	646.3717	DOUBLER				
	22	22	44	601.1948	SCREW	MS27039-1-19			
	2	2	43	601.1952	SCREW	MS27039-1-20			
	4	4	42	601.1956	SCREW	MS27039-1-21			
ASDA	ADDS	ADDA	ADDS	ADDS	FIND #	PART #	DESCRIPTION	MATL	SPEC.

REV	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECN 0277, 0281, 0271 & 02745	02/08/2010	P. BRAYO
B	INCORPORATED ECN 0284, 0287 & 04731	11/04/2011	P. BRAYO
C	INCORPORATED ECN 0289	09/05/2012	P. BRAYO

		2		2	41	601.2829	SCREW	MS2468MS54	
		2		2	40	601.2831	RIVET	MS20426AD5-7	
		1		1	39	646.3716	GAUGE BRACKET		
		6		6	38	601.1953	SCREW	MS27039-1-12	
		2		2	37	646.3715	STRUT DOUBLER		
	2	2		2	36	601.2824	BOLT	AN3-5A	
12	36			36	35	601.2277	RIVET	CC89485-3-02	
6	18			18	34	600.0795	NUTPLATE	MS27047-3	
3	3			3	33	601.2565	RIVET	MS20470AD5-7	
1	1			1	32	646.3813	STRUT BRACKET		
4	4			4	31	601.2822	BOLT	AN3-3A	
2	2			2	30	646.3812	GUSSET BRACKET		
8	8			8	29	601.2564	RIVET	MS20470AD5-6	
1	1			1	28	646.3714	GUSSET		
	1	1		1	27	646.3610	FILLER		
	3	3		3	26	601.2830	SCREW	MS2468MS55	
	2	2		2	25	601.2825	BOLT	AN3-6A	
	1	1		1	24	646.3611	RADIUS BLOCK		
	1	1		1	23	646.3712	CLIP		
	1	1		1	22	646.3711	CLIP		
8	8			8	21	601.2832	RIVET	MS20470AD5-5	
14	14			14	20	601.2020	RIVET	CR3713-5-3	
4	6	4	6	10	19	601.2823	BOLT	AN3-4A	
	1	1		1	18	601.2827	BOLT	AN3-13A	
	5	5		5	17	601.2912	SCREW	MS2468MS51	
1	1			1	16	646.3713	GUSSET		
1	1			1	15	646.3210	SUPPORT		
	1	1		1	14	646.3710	DOUBLER		
	1	1		1	13	646.3110	CHANNEL		
14	10	8	53	6	61	601.1624	LOCKNUT	MS27042-3	
16	32	18	120	16	144	601.1607	WASHER	NAS11499B32P	
				1	10	646.3410	LH WIPER DEFLECTOR		
				1	9	646.3411	RH WIPER DEFLECTOR		
		2		2	8	647.7703	STRUT ASSY		
		2		2	7	647.0112	STRUT BRACKET		
	1	1		1	6	646.3511	STRUT		
	1	1		1	5	646.3510	STRUT		
2		2		2	4	646.3810	BRACKET		
		1		1	3	646.2910	DEFLECTOR		
	1	1		1	2	646.3001	LOWER CUTTER ASSY		
		1		1	1	646.3301	UPPER CUTTER ASSY		
X						646.4006	LOWER CUTTER FIXED PROVISIONS		
	X					646.4005	LOWER CUTTER REMOVABLE PROVISIONS		
		X				646.4004	FIXED PROVISIONS KIT		
			X			646.4003	CABLE CUTTERS KIT WITHOUT FIXED PROVISIONS		
				X		646.4002	AS350 WIPER DEFLECTOR KIT		
				X		646.4001	AS350 CABLE CUTTERS KIT		
ADDA	ADDS	ADDA	ADDS	ADDS	FIND #	PART #	DESCRIPTION	MATL	SPEC.

QTY		NEXT ASSY (S)		ORIGINAL DATE INCORP. BY: 08/27/08 DRAWN BY: P. BRAYO S. HUFF P. BRAYO DRAWING APPROVAL: P. BRAYO DATE: 08/27/08		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-6300 AEROSPACE OFFICIAL INDUSTRY, INC. DBA DART AEROSPACE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS: .000 2 PLACE DECIMALS: .00 1 PLACE DECIMALS: .0 ANGLES: .5°						AS350 CABLE CUTTERS KIT SRT: C-07 CODE: 07M16 SCALE: NONE SHEET: 1 OF 5	